

Diabetes Prevention & Management: Necessity and Opportunities

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The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

National Center for Chronic Disease Prevention and Health Promotion
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www.cdc.gov/diabetes



Latest Diabetes Prevalence Data

- 29.1 million people (9.3%) in the U.S. have diabetes
 - 21.0 million are diagnosed
 - 8.1 million are undiagnosed
 - 12.3% of those ≥ 20 years old
 - 25.9% of those ≥ 65 years old
- 86 million people in the U.S. have prediabetes

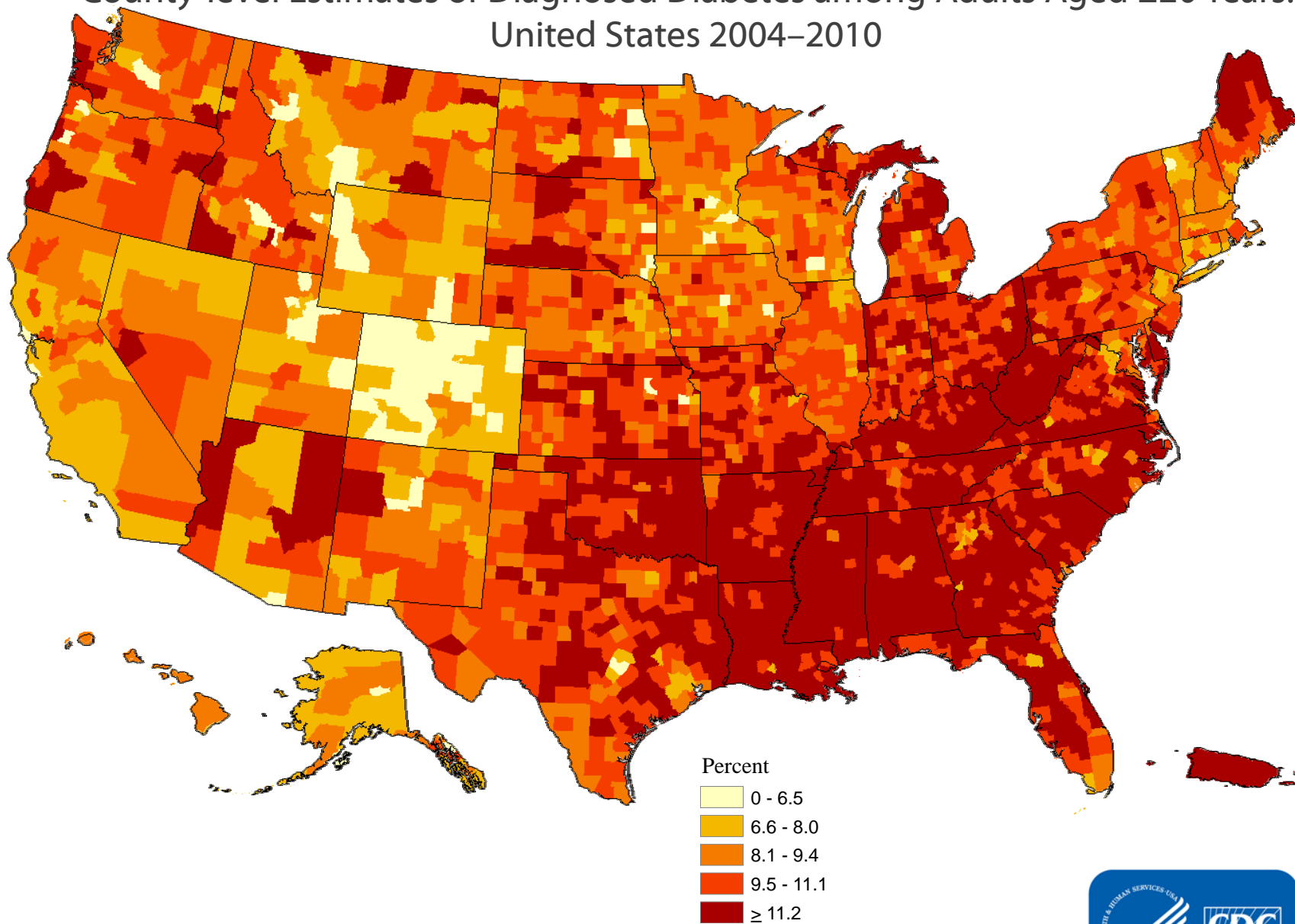


Source: *National Diabetes Statistics Report, 2014*

<http://www.cdc.gov/diabetes/pubs>

www.cdc.gov/diabetes

County-level Estimates of Diagnosed Diabetes among Adults Aged ≥ 20 Years: United States 2004–2010

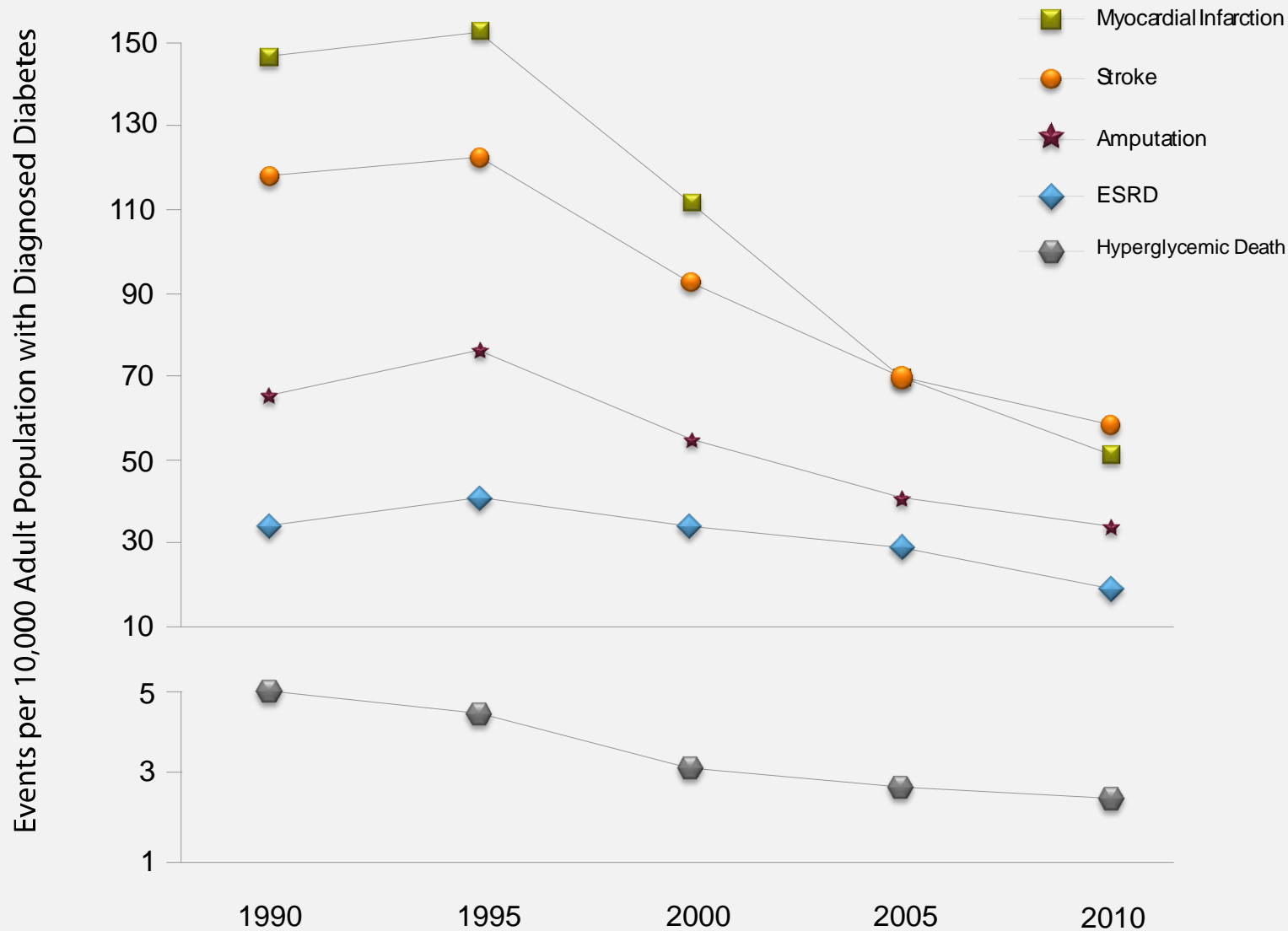


Diabetes Fact Sheet, 2011

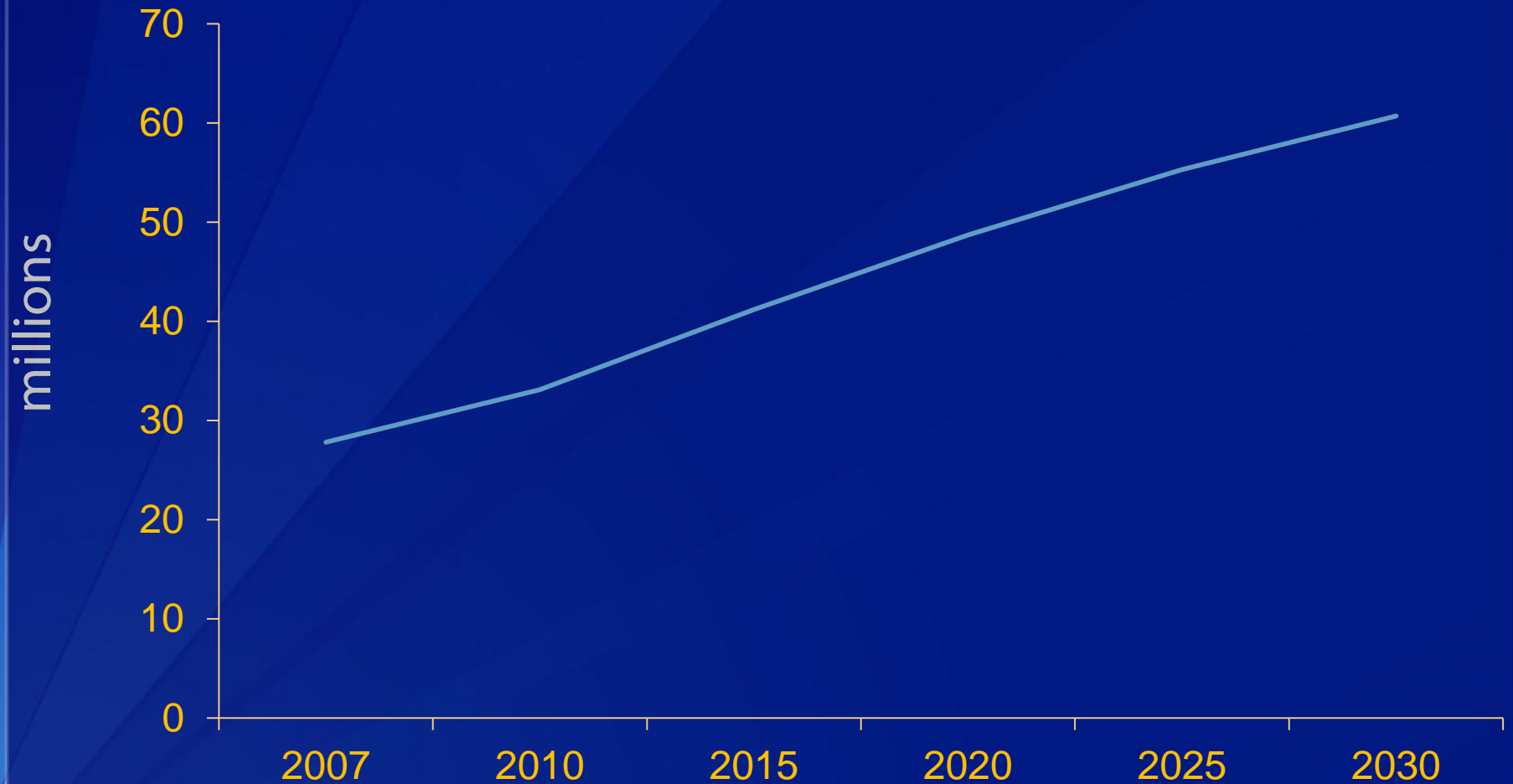
Health burden

- The 7th leading cause of death in the U.S.
 - Underlying cause on 69,071 death certificates
 - Contributing cause on 234,051 death certificates
- The leading cause of kidney disease
- The leading cause of nontraumatic lower-limb amputations
- The leading cause of new cases of blindness
- Significant contributor to heart disease and stroke

Trends in Age-standardized Rates of Diabetes-Related Complications from 1990 to 2010 among U.S. Adults with Diagnosed Diabetes



Current Projections of Cases of Diabetes in the United States by 2030



CDC Strategic Goals

Prevent diabetes

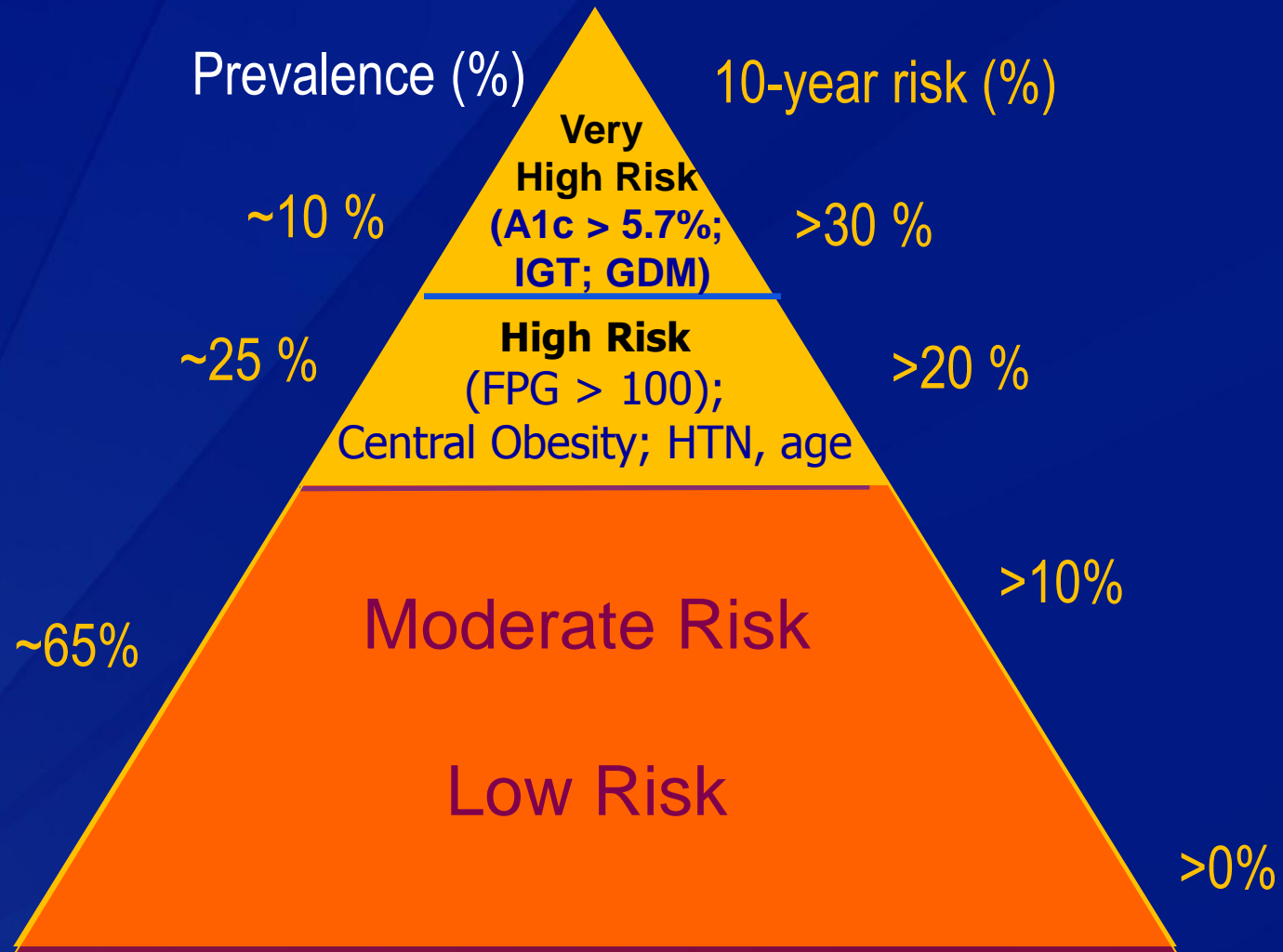


Prevent diabetes complications and disabilities

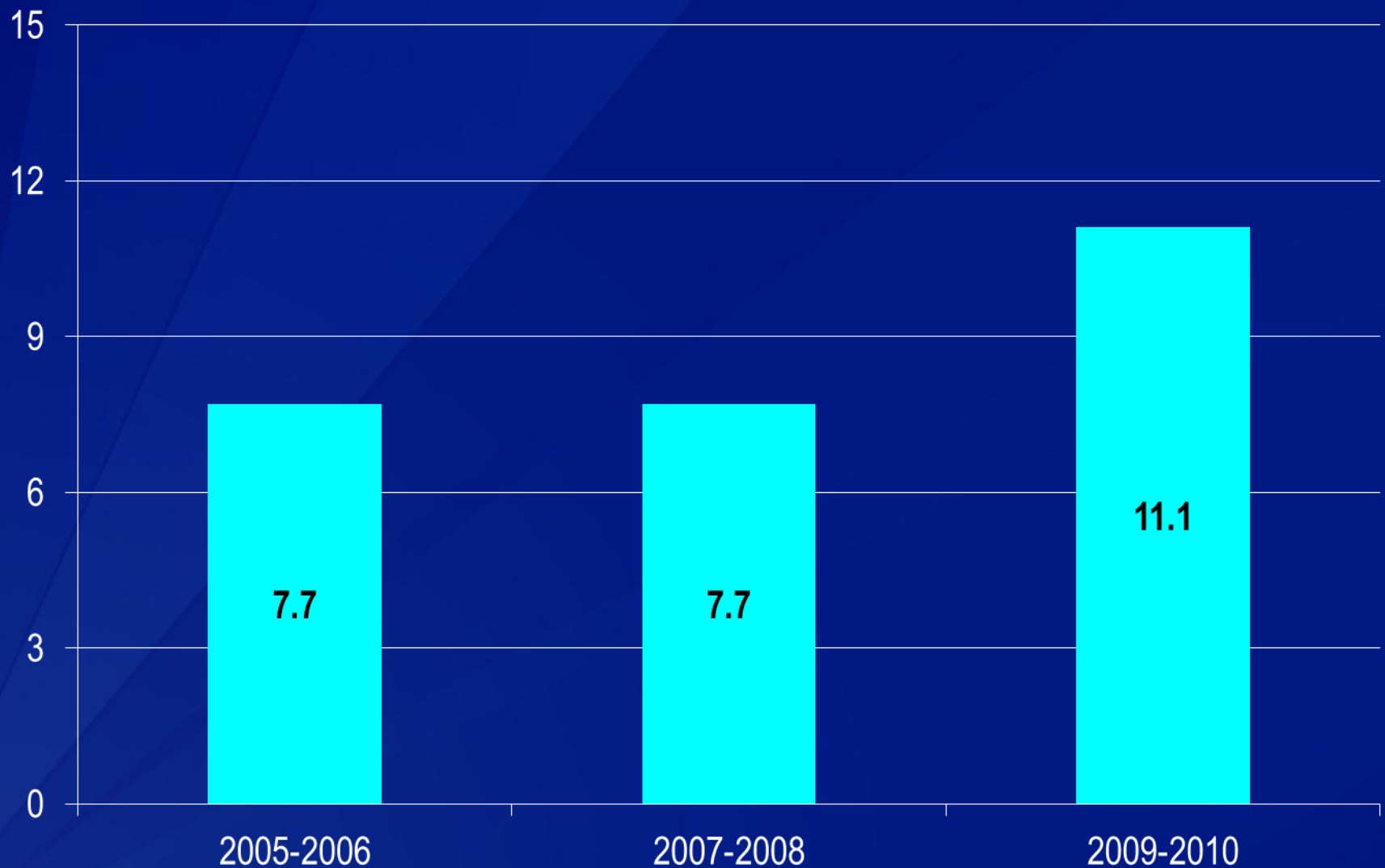
Eliminate diabetes-related health disparities



Risk Stratification Pyramid for Diabetes Prevention



Proportion of U.S. Adults Aged > 20 with Prediabetes Who Are Aware of Their Risk Status

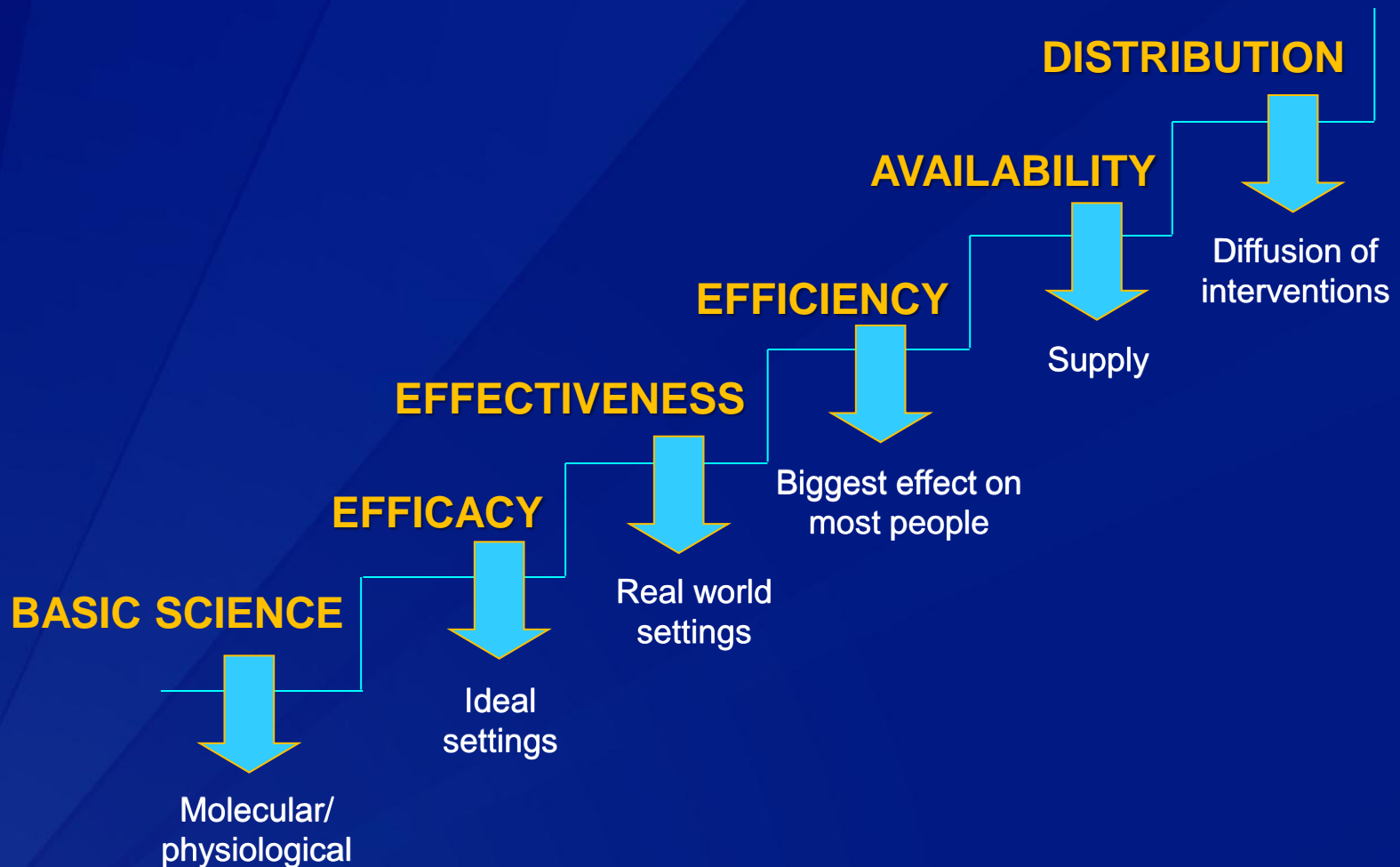


Evidence for National Diabetes Prevention Program

- The DPP research study showed that structured lifestyle change program achieved modest weight loss of 5-7 percent and 150 min PA/wk reduced type 2 diabetes by 58% (71% in those over age 60) in those at high risk for type 2 diabetes
 - True for all participating ethnic groups and for both men and women
 - Blood pressure and lipids improved
 - 10-year f/u shows continued reduction in new cases of type 2 diabetes
- Translational studies demonstrate trained lay health workers are as effective in delivering the lifestyle change program as health professionals
- National DPP is 1/3 of the cost of DPP research study and demonstrates similar lifestyle change results

Cost Effectiveness

- Diabetes prevention lifestyle change programs have been shown to be cost effective and can be cost saving
- Influenced by target population, delivery format and personnel, time horizon
- Some modeled data from an insurer has shown a three year cumulative ROI of 3:1 when using a pay-for-performance approach



Adapted from information in Sinclair JC, et al. N Engl J Med. 1981;305:489–494. and Detsky AS, et al. Ann Intern Med. 1990;113:147-154.

Elements Critical for Scale and Reach

- Implementation of specific interventions known to be effective
 - Common agenda
- Managing performance through accurate, simple, timely and critical information on program implementation and impact over long term
 - Measuring results consistently
- Communication, partnership, and coordination

National Diabetes Prevention Program

COMPONENTS



Training: Increase Workforce

Train the workforce that can implement the program cost effectively.



Recognition Program: Assure Quality

Implement a recognition program that will:

- Assure quality.
- Lead to reimbursement.
- Allow CDC to develop a program registry.



Intervention Sites: Deliver Program

Develop intervention sites that will build infrastructure and provide the program.



Health Marketing: Support Program Uptake

Increase referrals to and use of the prevention program.

Albright A, Gregg EW. *Am J Prev Med.* 2013;44(4S4):S346-S351.

Increase Workforce

- Trained lifestyle coaches attached to delivery organization
- Lay coaches and health professional coaches can both effectively deliver the program
- Use organizations that train to a CDC-approved curriculum
- > 3,000 coaches trained

Quality Assurance

CDC Recognition:

- Assure program quality and fidelity to scientific evidence
- Maintain a registry of recognized organizations
- Provide technical assistance to programs to assist staff in delivery and problem-solving to achieve and maintain recognition
- > 500 sites in recognition program

www.cdc.gov/diabetes/prevention/recognition

Deliver Program

- Link health care and community sectors
- Effective business model for program scalability and sustainability
- Programs in 50 states and DC to date – need many more
- Exploring methods to deliver program more widely
- Attendance matters

CDC Recognized Program Sites



Support Program Uptake

- 89% with no diagnosis and no symptoms requires aggressive awareness and testing efforts
- Engage multiple channels: employers, insurers, providers and directly to consumers



Medical
Management



Self-
Management



Ongoing
Support

Critical Elements of Diabetes Management

Focus of Public Health Interventions - 4 Domains

1. Epidemiology, surveillance and evaluation to inform and monitor
2. Environmental approaches that promote health
3. Health system interventions to improve access, delivery, and use of preventive services
4. Community-clinical linkages for prevention and management of chronic diseases



Summary

- More people have diabetes and more are developing it
- Future projections underscore prevention is critical
- Diabetes management remains a priority
- Eliminating disparities is key
- There are effective diabetes prevention and management interventions that must be scaled-up and sustained